



# MAJOR SOURCE OPERATING PERMIT

**PERMITTEE:** LINDE GAS NORTH AMERICA, LLC.

**FACILITY NAME:** LINDE GAS NORTH AMERICA, LLC.

**FACILITY/PERMIT NO.:** 712-0072

**LOCATION:** DECATUR, MORGAN, ALABAMA

*In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, as amended, Ala. Code 1975, §§22-28-1 to 22-28-23 (2006 Rplc. Vol. and 2007 Cum. Supp.) (the "AAPCA") and the Alabama Environmental Management Act, as amended, Ala. Code 1975, §§22-22A-1 to 22-22A-15, (2006 Rplc. Vol. and 2007 Cum. Supp.) and rules and regulations adopted thereunder, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.*

*Pursuant to the **Clean Air Act of 1990**, all conditions of this permit are federally enforceable by EPA, the Alabama Department of Environmental Management, and citizens in general. Those provisions which are not required under the **Clean Air Act of 1990** are considered to be state permit provisions and are not federally enforceable by EPA and citizens in general. Those provisions are contained in separate sections of this permit.*

**Issuance Date:** March XX, 2014

**Effective Date:** March XX, 2014

**Expiration Date:** March XX, 2019

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<p><b>1.     <u>Transfer</u></b></p> <p>This permit is not transferable, whether by operation of law or otherwise, either from one location to another, from one piece of equipment to another, or from one person to another, except as provided in Rule 335-3-16-.13(1)(a)5.</p> <p><b>2.     <u>Renewals</u></b></p> <p>An application for permit renewal shall be submitted at least six (6) months, but not more than eighteen (18) months, before the date of expiration of this permit.</p> <p>The source for which this permit is issued shall lose its right to operate upon the expiration of this permit unless a timely and complete renewal application has been submitted within the time constraints listed in the previous paragraph.</p> <p><b>3.     <u>Severability Clause</u></b></p> <p>The provisions of this permit are declared to be severable and if any section, paragraph, subparagraph, subdivision, clause, or phrase of this permit shall be adjudged to be invalid or unconstitutional by any court of competent jurisdiction, the judgment shall not affect, impair, or invalidate the remainder of this permit, but shall be confined in its operation to the section, paragraph, subparagraph, subdivision, clause, or phrase of this permit that shall be directly involved in the controversy in which such judgment shall have been rendered.</p> <p><b>4.     <u>Compliance</u></b></p> <p>(a)     The permittee shall comply with all conditions of ADEM Admin. Code 335-3. Noncompliance with this permit will constitute a violation of the Clean Air Act of 1990 and ADEM Admin. Code 335-3 and may result in an enforcement action; including but not limited to, permit termination, revocation and reissuance, or modification; or denial of a permit renewal application by the permittee.</p> <p>(b)     The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.</p>	<p>Rule 335-3-16-.02(6)</p> <p>Rule 335-3-16-.12(2)</p> <p>Rule 335-3-16-.05(e)</p> <p>Rule 335-3-16-.05(f)</p> <p>Rule 335-3-16-.05(g)</p>

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<p><b>5. <u>Termination for Cause</u></b></p> <p>This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance will not stay any permit condition.</p>	<p>Rule 335-3-16-.05(h)</p>
<p><b>6. <u>Property Rights</u></b></p> <p>The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.</p>	<p>Rule 335-3-16-.05(i)</p>
<p><b>7. <u>Submission of Information</u></b></p> <p>The permittee must submit to the Department, within 30 days or for such other reasonable time as the Department may set, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. Upon receiving a specific request, the permittee shall also furnish to the Department copies of records required to be kept by this permit.</p>	<p>Rule 335-3-16-.05(j)</p>
<p><b>8. <u>Economic Incentives, Marketable Permits, and Emissions Trading</u></b></p> <p>No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.</p>	<p>Rule 335-3-16-.05(k)</p>
<p><b>9. <u>Certification of Truth, Accuracy, and Completeness:</u></b></p> <p>Any application form, report, test data, monitoring data, or compliance certification submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness that meets the requirements of Rule 335-3-16-.04(9). This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.</p>	<p>Rule 335-3-16-.07(a)</p>
<p><b>10. <u>Inspection and Entry</u></b></p> <p>Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized</p>	<p>Rule 335-3-16-.07(b)</p>

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<p>representatives of the Alabama Department of Environmental Management and EPA to conduct the following:</p> <ul style="list-style-type: none"> <li>(a) Enter upon the permittee's premises where a source is located or emissions-related activity is conducted, or where records must be kept pursuant to the conditions of this permit;</li> <li>(b) Review and/or copy, at reasonable times, any records that must be kept pursuant to the conditions of this permit;</li> <li>(c) Inspect, at reasonable times, this facility's equipment (including monitoring equipment and air pollution control equipment), practices, or operations regulated or required pursuant to this permit;</li> <li>(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or other applicable requirements.</li> </ul>	
<p><b>11. <u>Compliance Provisions</u></b></p> <ul style="list-style-type: none"> <li>(a) The permittee shall continue to comply with the applicable requirements with which the company has certified that it is already in compliance.</li> <li>(b) The permittee shall comply in a timely manner with applicable requirements that become effective during the term of this permit.</li> </ul>	<p>Rule 335-3-16-.07(c)</p>
<p><b>12. <u>Compliance Certification</u></b></p> <p>A compliance certification shall be submitted no later than March XX of each calendar year unless more frequent periods are specified according to the specific rule governing the source or required by the Department..</p> <ul style="list-style-type: none"> <li>(a) The compliance certification shall include the following: <ul style="list-style-type: none"> <li>(1) The identification of each term or condition of this permit that is the basis of the certification;</li> <li>(2) The compliance status;</li> <li>(3) The method(s) used for determining the compliance status of the source, currently and over the reporting</li> </ul> </li> </ul>	<p>Rule 335-3-16-.07(e)</p>

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<p>period consistent with Rule 335-3-16-.05(c) (Monitoring and Recordkeeping Requirements);</p> <p>(4) Whether compliance has been continuous or intermittent; and</p> <p>(5) Such other facts as the Department may require to determine the compliance status of the source.</p> <p>(b) The compliance certification shall be submitted to:</p> <p style="padding-left: 40px;">Alabama Department of Environmental Management Air Division P.O. Box 301463 Montgomery, AL 36130-1463</p> <p style="padding-left: 80px;">and to:</p> <p style="padding-left: 40px;">Air and EPCRA Enforcement Branch EPA Region IV 61 Forsyth Street, SW Atlanta, GA 30303</p>	
<p><b>13. <u>Reopening for Cause</u></b></p> <p>Under any of the following circumstances, this permit will be reopened prior to the expiration of the permit:</p> <p>(a) Additional applicable requirements under the Clean Air Act of 1990 become applicable to the permittee with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire.</p> <p>(b) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into this permit.</p> <p>(c) The Department or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or</p>	<p>Rule 335-3-16-.13(5)</p>

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<p>conditions of this permit.</p> <p>(d) The Administrator or the Department determines that this permit must be revised or revoked to assure compliance with the applicable requirements.</p> <p><b>14. <u>Additional Rules and Regulations</u></b></p> <p>This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.</p> <p><b>15. <u>Equipment Maintenance or Breakdown</u></b></p> <p>(a) In the case of shutdown for more than 1 hour of air pollution control equipment for necessary scheduled maintenance, the intent to shut down such equipment shall be reported to the Director at least twenty-four (24) hours prior to the planned shutdown, unless such shutdown is accompanied by the shutdown of the source which such equipment is intended to control. The Department shall be notified when maintenance on the air pollution control equipment is complete and the equipment is operating. Such prior notice shall include, but is not limited to the following:</p> <ol style="list-style-type: none"> <li>(1) Identification of the specific facility to be taken out of service as well as its location and permit number;</li> <li>(2) The expected length of time that the air pollution control equipment will be out of service;</li> <li>(3) The nature and quantity of emissions of air contaminants likely to occur during the shutdown period;</li> <li>(4) Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shutdown period;</li> <li>(5) The reasons that it would be impossible or impractical to shut down the source operation during the maintenance period.</li> </ol> <p>(b) In the event that there is a breakdown of equipment or upset of process for a period exceeding one hour in such a manner</p>	<p>§22-28-16(d), Code of Alabama 1975, as amended</p> <p>Rule 335-3-1-.07(1), (2)</p>

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<p>as to cause, or is expected to cause, increased emissions of air contaminants which are above an applicable standard, the person responsible for such equipment shall notify the Director within 24 hours or the next working day and provide a statement giving all pertinent facts, including the estimated duration of the breakdown. The Director shall be notified when the breakdown has been corrected.</p>	
<p><b>16. <u>Operation of Capture and Control Devices</u></b></p> <p>All air pollution control devices and capture systems for which this permit is issued shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.</p>	<p>§22-28-16(d), Code of Alabama 1975, as amended</p>
<p><b>17. <u>Obnoxious Odors</u></b></p> <p>This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.</p>	<p>Rule 335-3-1-.08</p>
<p><b>18. <u>Fugitive Dust</u></b></p> <p>Reasonable precautions to prevent fugitive dust shall be taken so that provisions of the Department's rules and regulations shall not be violated.</p>	<p>Rule 335-3-4-.02</p>
<p><b>19. <u>Additions and Revisions</u></b></p> <p>Any modifications to this source shall comply with the modification procedures in Rules 335-3-16-.13 or 335-3-16-.14.</p>	<p>Rule 335-3-16-.13 and .14</p>
<p><b>20. <u>Recordkeeping Requirements</u></b></p> <p>(a) Records of required monitoring information of the source shall, where appropriate, include the following:</p> <p>(1) The date, place, and time of all sampling or measurements;</p>	<p>Rule 335-3-16-.05(c)2.</p>



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<ul style="list-style-type: none"> <li>(2) The date analyses were performed;</li> <li>(3) The company or entity that performed the analyses;</li> <li>(4) The analytical techniques or methods used;</li> <li>(5) The results of all analyses; and</li> <li>(6) The operating conditions that existed at the time of sampling or measurement.</li> </ul> <p>(b) Retention of records of all required monitoring data and support information of the source for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by the permit.</p> <p>(c) The Permittee shall conduct monitoring in accordance with the specific provisions of the permit, provided that no monitoring is required when the process or emission source is not operating.</p>	
<p><b>21. <u>Reporting Requirements</u></b></p> <p>(a) Reports to the Department of any required monitoring shall be submitted at least every six months. The reports shall be submitted within 60 days following the end of the six month period. All instances of deviations from permit requirements must be clearly identified in said reports. All required reports must be certified by a responsible official consistent with Rule 335-3-16-.04(9).</p> <p>(b) Deviations from permit requirements shall be reported within 48 hours or 2 working days of such deviations, including those attributable to upset conditions as defined in the permit. The report will include the probable cause of said deviations, and any corrective actions or preventive measures that were taken.</p>	<p>Rule 335-3-16-.05(c)3.</p>
<p><b>22. <u>Emission Testing Requirements</u></b></p> <p>Each point of emission which requires testing will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures</p>	<p>Rule 335-3-1-.05(3) and Rule 335-3-1-.04(1)</p>

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<p>established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised. As allowed in MACT and other regulations, flexibility is provided to use alternative test methods, as approved by EPA, ADEM or permit condition.</p> <p>The Air Division must be notified in writing at least 10 days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.</p> <p>To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:</p> <ul style="list-style-type: none"> <li>(a) The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.</li> <li>(b) A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedures require probe cleaning).</li> <li>(c) A description of the process(es) to be tested including the feed rate, any operating parameters used to control or influence the operations, and the rated capacity.</li> <li>(d) A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.</li> </ul> <p>A pretest meeting may be held at the request of the source owner or the Air Division. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis.</p> <p>All test reports must be submitted to the Air Division within 30 days of the actual completion of the test unless an extension of time is specifically approved by the Air Division or an alternative time is specified by an applicable regulation.</p>	<p>Rule 335-3-1-.04</p> <p>Rule 335-3-1-.04</p>
<p><b>23. <u>Payment of Emission Fees</u></b></p> <p>Annual emission fees shall be remitted each year according to the</p>	<p>Rule 335-1-7-.04</p>

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<p>fee schedule in ADEM Admin. Code R. 335-1-7-.04.</p>	
<p><b>24. <u>Other Reporting and Testing Requirements</u></b></p> <p>Submission of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require emission testing at any time.</p> <p><b>25. <u>Title VI Requirements (Refrigerants)</u></b></p> <p>Any facility having appliances or refrigeration equipment, including air conditioning equipment, which use Class I or Class II ozone-depleting substances as listed in 40 CFR Part 82, Subpart A, Appendices A and B, shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82, Subpart F.</p> <p>No person shall knowingly vent or otherwise release any Class I or Class II substance into the environment during the repair, servicing, maintenance, or disposal of any device except as provided in 40 CFR Part 82, Subpart F.</p> <p>The responsible official shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the US EPA and the Department as required.</p>	<p>Rule 335-3-1-.04(1)</p> <p>40 CFR Part 82</p>
<p><b>26. <u>Chemical Accidental Prevention Provisions</u></b></p> <p>If a chemical listed in Table 1 of 40 CFR Part 68.130 is present in a process in quantities greater than the threshold quantity listed in Table 1, then:</p> <p>(a) The owner or operator shall comply with the provisions in 40 CFR Part 68.</p> <p>(b) The owner or operator shall submit one of the following:</p> <p>(1) A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR Part 68 § 68.10(a) or,</p> <p>(2) A certification statement that the source is in compliance with all requirements of 40 CFR Part 68,</p>	<p>40 CFR Part 68</p>

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<p style="text-align: center;">including the registration and submission of the Risk Management Plan.</p>	
<p><b>27. <u>Display of Permit</u></b></p> <p>This permit shall be kept under file or on display at all times at the site where the facility for which the permit is issued is located and will be made readily available for inspection by any or all persons who may request to see it.</p>	<p>Rule 335-3-14-.01(1)(d)</p>
<p><b>28. <u>Circumvention</u></b></p> <p>No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes any emission of air contaminant which would otherwise violate the Division 3 rules and regulations.</p>	<p>Rule 335-3-1-.10</p>
<p><b>29. <u>Visible Emissions</u></b></p> <p>Unless otherwise specified in the Unit Specific provisos of this permit, any source of particulate emissions shall not discharge more than one 6-minute average opacity greater than 20% in any 60-minute period. At no time shall any source discharge a 6-minute average opacity of particulate emissions greater than 40%. Opacity will be determined by 40 CFR Part 60, Appendix A, Method 9, unless otherwise specified in the Unit Specific provisos of this permit.</p>	<p>Rule 335-3-4-.01(1)</p>
<p><b>30. <u>Fuel-Burning Equipment</u></b></p> <p>Unless otherwise specified in the Unit Specific provisos of this permit, no fuel-burning equipment may discharge particulate emissions in excess of the emissions specified in Part 335-3-4-.03.</p> <p>Unless otherwise specified in the Unit Specific provisos of this permit, no fuel-burning equipment may discharge sulfur dioxide emissions in excess of the emissions specified in Part 335-3-5-.01.</p>	<p>Rule 335-3-4-.03</p> <p>Rule 335-3-5-.01</p>
<p><b>31. <u>Process Industries – General</u></b></p> <p>Unless otherwise specified in the Unit Specific provisos of this permit, no process may discharge particulate emissions in excess of the emissions specified in Part 335-3-4-.04.</p>	<p>Rule 335-3-4-.04</p>

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<p><b>32. <u>Averaging Time for Emission Limits</u></b></p> <p>Unless otherwise specified in the permit, the averaging time for the emission limits listed in this permit shall be the nominal time required by the specific test method.</p> <p><b>33. <u>Permit Shield</u></b></p> <p>A permit shield exists under this operating permit in accordance with ADEM Administrative Code R. 335-3-16-.10 in that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance. The permit shield is based on the accuracy of the information supplied in Item 13 of the application's ADEM Form 103 for this permit. Under this shield, it has been determined that requirements listed as non-applicable in such section are not applicable to this source.</p> <p><b>34. <u>Compliance Assurance Monitoring (CAM)</u></b></p> <p>Conditions (a) through (d) that follow are general conditions applicable to emissions units that are subject to the CAM requirements. Specific requirements related to each emissions unit are contained in the unit specific provisos and the attached CAM appendices.</p> <p>(a) Operation of Approved Monitoring</p> <p>(1) Commencement of operation. The owner or operator shall conduct the monitoring required under this section and detailed in the unit specific provisos and CAM appendix of this permit (if required) upon issuance of the permit, or by such later date specified in the permit pursuant to §64.6(d).</p> <p>(2) Proper maintenance. At all times, except as identified in (a) (3), the owner or operator shall maintain monitoring equipment. This includes, but is not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.</p> <p>(3) Continued operation. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all</p>	<p>Rule 335-3-1-.05</p> <p>Rule 335-3-16-.10</p> <p>40 CFR 64.7</p>

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<p>monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.</p> <p>(4) Response to excursions or exceedances. (a) Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable. (b) Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.</p> <p>(5) Documentation of need for improved monitoring. After approval of monitoring under this part, if the owner or</p>	

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<p>operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the Department and, if necessary, submit a proposed modification to the permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.</p> <p>(b) Quality Improvement Plan (QIP) Requirements</p> <p>(1) Based on the results of a determination made under Section 33(a)(4)(b) above, the Administrator or the permitting authority may require the owner or operator to develop and implement a QIP. Consistent with 40 CFR §64.6(c)(3), the permit may specify an appropriate threshold, such as an accumulation of exceedances or excursions exceeding 5 percent duration of a pollutant-specific emissions unit's operating time for a reporting period, for requiring the implementation of a QIP. The threshold may be set at a higher or lower percent or may rely on other criteria for purposes of indicating whether a pollutant-specific emissions unit is being maintained and operated in a manner consistent with good air pollution control practices.</p> <p>(2) Elements of a QIP:</p> <p>A. The owner or operator shall maintain a written QIP, if required, and have it available for inspection.</p> <p>B. The plan initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:</p>	<p>40 CFR 64.8</p>

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<ul style="list-style-type: none"> <li>(i) Improved preventive maintenance practices.</li> <li>(ii) Process operation changes.</li> <li>(iii) Appropriate improvements to control methods.</li> <li>(iv) Other steps appropriate to correct control performance.</li> <li>(v) More frequent or improved monitoring (only in conjunction with one or more steps under paragraphs (2)(b)(i) through (iv) above).</li> </ul> <p>(3) If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the Department if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.</p> <p>(4) Following implementation of a QIP, upon any subsequent determination pursuant to Section 33(a)(4)(b) above, the Department may require that an owner or operator make reasonable changes to the QIP if the QIP is found to have:</p> <ul style="list-style-type: none"> <li>A. Failed to address the cause of the control device performance problems; or</li> <li>B. Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.</li> </ul> <p>(5) Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.</p>	
<p>(c) Reporting and Recordkeeping Requirements</p> <p>(1) General reporting requirements</p> <ul style="list-style-type: none"> <li>A. On and after the date specified in Section 33(a)(1) above by which the owner or operator must use</li> </ul>	<p>40 CFR 64.9</p>



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<p>monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with ADEM Admin. Code R. 335-3-16-.05(c)3.</p> <p>B. A report for monitoring under this part shall include, at a minimum, the information required under ADEM Admin. Code R. 335-3-16-.05(c)3. and the following information, as applicable:</p> <ul style="list-style-type: none"> <li>(i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;</li> <li>(ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and</li> <li>(iii) A description of the actions taken to implement a QIP during the reporting period as specified in Section 34(b) above. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.</li> </ul> <p>(2) General recordkeeping requirements.</p> <p>A. The owner or operator shall comply with the recordkeeping requirements specified in ADEM Admin. Code R. 335-3-16-.05(c)2.. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to Section 34(b) above and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).</p>	

## General Permit Provisos

Federally Enforceable Provisos	Regulations
<p>B. Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.</p> <p>(d) Savings Provisions</p> <p>(1) Nothing in this part shall:</p> <p>A. Excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act. The requirements of this part shall not be used to justify the approval of monitoring less stringent than the monitoring which is required under separate legal authority and are not intended to establish minimum requirements for the purpose of determining the monitoring to be imposed under separate authority under the Act, including monitoring in permits issued pursuant to title I of the Act. The purpose of this part is to require, as part of the issuance of a permit under title V of the Act, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of this part.</p> <p>B. Restrict or abrogate the authority of the Department to impose additional or more stringent monitoring, recordkeeping, testing, or reporting requirements on any owner or operator of a source under any provision of the Act, including but not limited to sections 114(a)(1) and 504(b), or state law, as applicable.</p> <p>C. Restrict or abrogate the authority of the Department to take any enforcement action under the Act for any violation of an applicable requirement or of any person to take action under section 304 of the Act.</p>	<p>40 CFR 64.10</p>

## **No. 1 Hydrogen Gas Generation Plant Informational Summary**

**Description:** Hydrogen Gas Generation Plant with Hydrogen Reformers and Low Pressure Boiler and an Emergency Flare

**Emission Unit No:** X001

**Installation Date:** 1998

**Reconstruction / Modification date:**

**Operating Capacity:**

**Operating Schedule:** 8760 hours/year

This unit contains equipment that is subject to the following NSPSs, NESHAPs, or MACTs:

### **Part 60 Subpart Dc**

#### **Pollutants Emitted**

<b>Emission Point #</b>	<b>Point Description</b>	<b>Pollutant</b>	<b>Emission Limit</b>	<b>Standard</b>
	No. 1 Hydrogen Generation Plant	NOx	99 tpy	Anti-PSD

## No. 1 Hydrogen Gas Generation Plant Provisos

Federally Enforceable Provisos	Regulations
<p><b>Applicability</b></p> <ol style="list-style-type: none"> <li>1. This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-16-.03, Major Source Operating Permits.</li> <li>2. The low pressure boiler is subject to the requirements of the General Provisions as indicated in 40 CFR Part 60 Subpart a, unless otherwise stated in 40 CFR Part 60, Subpart Dc.</li> <li>3. The low pressure boiler is subject to the requirements of the Federal New Source Performance Standards (NSPS) for Industrial – Commercial-Institutional Steam Generating Units, Subpart Dc.</li> <li>4. This source is subject to synthetic minor PSD emission limitations.</li> </ol>	<p>335-3-16-.03</p> <p>335-3-10-.02(1)</p> <p>335-3-10-.02(2)(c)</p> <p>334-3-14-.04</p>
<p><b>Emission Standards</b></p> <ol style="list-style-type: none"> <li>1. The reformers shall be limited to the use of Adiponitrile Flasher Tails (AFT), natural gas, and Pressure Swing Absorption (PSA) offgas.</li> <li>2. A selective non-catalytic reduction (SNCR) unit shall be operated on the common stack of the exhaust streams of the reformers for control of NOx emissions.</li> <li>3. The ammonia injection rate for the SNCR shall be at least 1.2 lb/100 lb AFT burned.</li> <li>4. The low pressure boiler (LPB) shall be limited to the use of natural gas.</li> <li>5. The low pressure boiler shall be limited to a maximum daily average heat input of 25.2 MMBtu/hr</li> <li>6. This unit shall comply with the applicable standards listed in 40 CFR 60.482-1 through 60.483-2 of Subpart VV.</li> <li>7. The NOx emissions from the LP Boiler and reformers shall not exceed 99 tpy.</li> <li>8. As a BACT determination for thermal NOx formation, the reformers and low pressure boiler shall adhere to good combustion practices.</li> <li>9. The emergency flare shall only control emissions from the relief valves.</li> </ol>	<p>335-3-14-.04</p> <p>335-3-14-.04</p> <p>335-3-14-.04</p> <p>335-3-14-.04</p> <p>335-3-14-.04</p> <p>335-3-14-.04</p> <p>335-3-14-.04</p> <p>335-3-14-.04</p> <p>335-3-14-.04</p>

## No. 1 Hydrogen Gas Generation Plant Provisos

Federally Enforceable Provisos	Regulations
<b>Compliance and Performance Test Methods and Procedures</b> <ol style="list-style-type: none"> <li>1. Compliance with the opacity requirements for this unit shall be determined by Reference Method 9 in Appendix A of 40 CFR 60. Alternate test methods may be used provided prior approval by the Department is granted.</li> <li>2. Compliance with the nitrogen oxide emission requirements shall be determined by a continuous emission rate monitoring system (CERMS). The CERMS shall include, but not be limited to, a device to measure the flow rate of the exhaust stream from the SCR and a monitor to measure the concentration of NOx from the inlet and outlet streams of the SCR.</li> <li>3. The monitoring system(s) shall meet the requirements of 40 CFR 60 Appendix F. The results of the Relative Accuracy Test Audit (RATA) shall be calculated using units of pounds of NOx per hour.</li> <li>4. The NOx meter shall be audited quarterly according the requirements of Section 5.1.2 of 40 CFR 60 Appendix F (Cylinder Gas Audit).</li> <li>5. Compliance with the heat input limit for the low pressure boiler shall be demonstrated by fuel calculations. The following heat content factors shall be used to calculate the heat input. <ul style="list-style-type: none"> <li>• Natural Gas      947 Btu/scf</li> </ul> </li> </ol>	<p>335-3-1-.05</p> <p>335-3-1-.05</p> <p>335-3-1-.05</p> <p>335-3-1-.05</p> <p>335-3-1-.05</p>
<b>Emission Monitoring</b> <ol style="list-style-type: none"> <li>1. The average hourly heat input of the low pressure boiler shall be calculated on a daily basis.</li> <li>2. In order to ensure the No. 1 Hydrogen Gas Generation Plant is in compliance with its respective NOx emission limit, the facility shall continuously monitor the ammonia injection rate to insure a minimum injection rate of 1.2 lb/100 lb AFT burned as calculated on a 3-hr average.</li> <li>3. A continuous emission rate monitoring system(s) (CERMS) shall be installed to monitor the NOx emissions. The monitoring system(s) shall meet the requirements of 40 CFT 60 Appendix F. The results of the Relative Accuracy Test Audit (RATA) shall be calculated using units of pounds of NOx per hour. The NOx meter shall be audited quarterly according to the requirements of Section 5.1.2 of 40 CFR 60 Appendix F (Cylinder Gas Audit).</li> </ol>	<p>335-3-16-.05(c)(1)(ii)</p> <p>335-3-16-.05(c)(1)(ii)</p> <p>335-3-16-.05(c)(1)(ii)</p>
<b>Recordkeeping and Reporting Requirements</b> <ol style="list-style-type: none"> <li>1. The daily calculations of the hourly heat input of the low pressure boiler shall be recorded and kept in a permanent form suitable for inspection for a period of at least 2 years.</li> </ol>	<p>335-3-16-.05(c)(1)(ii)</p>

## No. 1 Hydrogen Gas Generation Plant

### Provisos

Federally Enforceable Provisos	Regulations
<p>2. As required by NSPS, Subpart Dc, the facility shall record daily the amount of fuel burned in the low pressure boiler.</p> <p>3. Records of the daily amount of each fuel burned in each combustion source shall be kept in a permanent form suitable for inspection for a period of at least 2 years.</p> <p>4. Records of the ammonia injection in the SNCR shall be kept in a permanent form suitable for inspection for a period of at least 2 years.</p> <p>5. A written report of process upsets or malfunctions shall be submitted to the Department for each semiannual period within the month following the end of the semiannual period. The report shall include the following information:</p> <ul style="list-style-type: none"> <li>• The date and time of commencement and completion of each time period of process upset or malfunction.</li> <li>• The nature and cause of the process upset or malfunction and the corrective action taken or preventative measures adopted.</li> <li>• The end time identifying each period during which the monitoring system(s) was inoperative (except for zero and span checks) and the nature of the repairs or adjustments.</li> <li>• Equations used to convert NO<sub>x</sub> emission data as monitored to the required reporting standard (lb/hr) shall be included in the report(s).</li> </ul> <p>When no process malfunctions have occurred and the monitoring system(s) was not inoperative or did not require repair or adjustment, such information shall be stated in the report.</p>	<p>335-3-10-.02(2)(c)</p> <p>335-3-16-.05(c)(1)(ii)</p> <p>335-3-16-.05(c)(1)(ii)</p> <p>335-3-16-.05(c)(1)(ii)</p>
<p>6. A written report of excess NO<sub>x</sub> emissions, as defined below, shall be submitted to the Department of each semiannual period within the months following the end of the semiannual period. The reports shall include the following information:</p> <ul style="list-style-type: none"> <li>• The date and time of commencement and completion of each time period of process upset or malfunction.</li> <li>• The nature and cause of the process upset or malfunction and the corrective action taken or preventative measures adopted.</li> <li>• The date and time identifying each period during which the monitoring system(s) was inoperative (except for zero and span checks) and the nature of the repairs or adjustments.</li> <li>• Equations used to convert NO<sub>x</sub> emission data as monitored to the required reporting standard (lb/hr) shall be included in the report.</li> </ul> <p>When no excess emissions have occurred and the monitoring system(s) was inoperative or did not require repair or adjustment, such information shall be stated in the report.</p>	<p>335-3-16-.05(c)(1)(ii)</p>

# No. 1 Hydrogen Gas Generation Plant

## Provisos

Federally Enforceable Provisos	Regulations
7. All the original data charts, performance evaluations, calibration checks, adjustment and maintenance records and other information regarding monitoring system(s) shall be maintained in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports and records.	335-3-16-.05(c)(1)(ii)
8. Records of the monthly and 12 month rolling total NOx emission rates shall be made and maintained in a form suitable for inspection for at least 5 years.	335-3-16-.05(c)(1)(ii)
9. A report on the 12-month rolling total NOx emissions, NOx emission monitoring system operations, and flow rate monitoring system operations shall be submitted to the Department for each calendar quarter in accordance with the requirements of 40 CFR Part 60 Subpart A – General Provisions, Notification and Record Keeping	335-3-16-.05(c)(1)(ii)

## **No. 2 Hydrogen Gas Generation Plant Informational Summary**

**Description:** Hydrogen Gas Generation Plant with Hydrogen Reformers vented to Existing Emergency Flare

**Emission Unit No:** X003

**Installation Date:** 2013

**Reconstruction / Modification date:**

**Operating Capacity:**

**Operating Schedule:** 8760 hours/year

This unit contains equipment that is subject to the following NSPSs, NESHAPs, or MACTs:

**NA**

### **Pollutants Emitted**

<b>Emission Point #</b>	<b>Point Description</b>	<b>Pollutant</b>	<b>Emission Limit</b>	<b>Standard</b>
EP-2	Exhaust Stack	NOx	874.56 MMBtu/day	Anti-PSD
EP-2	Exhaust Stack	NOx	0.06 lb/MMBTU	Anti-PSD



## No. 2 Hydrogen Gas Generation Plant Provisos

Federally Enforceable Provisos	Regulations
<b>Applicability</b> <ol style="list-style-type: none"> <li>1. This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-16-.03, Major Source Operating Permits.</li> <li>2. This source is subject to synthetic minor PSD emission limitations.</li> </ol>	<p>335-3-16-.03</p> <p>334-3-14-.04</p>
<b>Emission Standards</b> <ol style="list-style-type: none"> <li>1. The reformers shall be limited to the use of natural gas and Pressure Swing Absorption (PSA) offgas.</li> <li>2. The reformer shall be limited to a maximum heat input of 874.56 MMBtu/day</li> <li>3. The emergency flare shall only control emissions from the relief valves.</li> <li>4. The NO<sub>x</sub> emissions from the reformer shall not exceed the limit of 0.06 lb/MMBtu heat input based.</li> </ol>	<p>335-3-14-.04</p> <p>335-3-14-.04</p> <p>335-3-14-.04</p> <p>335-3-14-.04</p>
<b>Compliance and Performance Test Methods and Procedures</b> <ol style="list-style-type: none"> <li>1. Compliance with the opacity requirements for this unit shall be determined by Reference Method 9 in Appendix A of 40 CFR 60. Alternate test methods may be used provided prior approval by the Department is granted.</li> <li>2. Compliance with the NO<sub>x</sub> requirements for this unit shall be determined by Reference Method 7E in Appendix A of 40 CFR 60. Alternate test methods may be used provided prior approval by the Department is granted.</li> <li>3. Compliance with the heat input limit shall be demonstrated by fuel calculations. The following heat content factors shall be used to calculate the heat input. <ul style="list-style-type: none"> <li>• PSA Offgas      347.7 Btu/scf</li> <li>• Natural Gas      947 Btu/scf</li> </ul> </li> </ol>	<p>335-3-1-.05</p> <p>335-3-1-.05</p> <p>335-3-1-.05</p>
<b>Emission Monitoring</b> <ol style="list-style-type: none"> <li>1. The average daily heat input shall be calculated on a daily basis.</li> </ol>	<p>335-3-16-.05(c)(1)(ii)</p>
<b>Recordkeeping and Reporting Requirements</b> <ol style="list-style-type: none"> <li>1. The daily calculations of the daily heat input shall be recorded and kept in a permanent form suitable for inspection for a period of at least 5 years.</li> </ol>	<p>335-3-16-.05(c)(1)(ii)</p>

## Provisos

When no excess emissions have occurred and the monitoring system(s) was inoperative or did not require repair or adjustment, such information shall be stated in the report.